

Amendments to the Claims

1-11. (Cancelled)

12. (Currently amended) A device for measuring muscle strength, comprising:

a lower support base adapted to support a standing patient in plantar support on said lower support base,

an upper support bracket movable vertically above the lower support base and conformed to bear vertically on the head of said patient,

means for selectively immobilizing the upper bearing bracket in vertical position,

means for measuring the vertical position of the upper support bracket,

means for measuring the vertical lifting force that the head of the patient applies to the upper support bracket, and

plantar support sensors in the lower support base, wherein the plantar support sensors comprise means for testing ~~adapted to test~~ for maintained normal plantar support of the foot or feet of the patient by producing a signal if the foot or feet are no longer in normal plantar support.

13. (Currently amended) The device according to Claim 12, having a vertical column which carries the upper support bracket and connects [[it]] the upper support bracket to the lower support base.

14. (Previously presented) The device according to Claim 12, wherein the lower support base comprises plantar support sensors adapted to ensure that ~~[[the]]~~ a bearing force is greater than a predefined minimum in both the anterior area and the posterior area of the foot.

15. (Currently amended) The device according to Claim 12, further comprising an anterior support adapted to constitute a frontal bearing against which the anterior base of the thigh of the patient can bear on flexing by less than 30°, ~~preferably less than 20°~~, with means for measuring the forward muscular force to evaluate the frontal bearing force of the thigh of the patient.

16. (Currently amended) The device according to Claim 12, comprising a computation unit associated with memory means and display means and receiving signals from the vertical position measuring means and the plantar support sensors of the lower ~~bearing~~ support base, the memory means containing a stored program for controlling the computation unit, the stored program including ~~in particular~~ a self-stretching amplitude measuring sequence for storing vertical positions of the upper support bracket when the latter is allowed to slide freely and is pushed by the head of the patient and a self-stretching muscular force measuring sequence for storing values of the lifting force applied by the head of the patient to the upper support bracket when said upper support bracket is immobilized in an appropriate vertical position.

17. (Previously presented) The device according to Claim 16, wherein the stored program includes an endurance measurement sequence for measuring the time for which an appropriate lifting force applied by the head of the patient to the upper support bracket is maintained.

18. (Previously presented) The device according to Claim 16, wherein the stored program includes sequences of instructions for testing in an intermittent contraction mode by generating an intermittent signal detectable by the patient to prompt alternate self-stretching contractions and relaxations and counting the number of contractions reaching a lifting force threshold after a sufficient relaxation characterized by a sufficiently low lifting force.

19. (Currently amended) A method of measuring the muscular strength of a patient using a device according to claim 12, comprising the steps of:

a) placing the patient in a standing position on the lower support base,

b) ensuring continuously that the patient is in normal plantar support on the lower ~~bearing~~ support base, and interrupting the measurement if the plantar support is not normal,

c) measuring the amplitude of self-stretching of the patient by allowing the upper support bracket to slide up and down according to vertical movements of the head of the patient and storing successive positions of the upper support bracket,

d) determining the maximum self-stretching value corresponding to the highest position recorded during the previous step,

e) fixing the vertical position of the upper support bracket a few

millimeters below the maximum self-stretching value,

f) measuring the self-stretching forces by storing the lifting force exerted by the head of the patient on the upper support bracket when the latter is immobilized vertically.

20. (Previously presented) The method according to Claim 19, further comprising the steps of:

g) recording the maximum lifting force,

h) selecting a lifting force threshold lower than the maximum lifting force,

i) determining the maximum endurance time by measuring the maximum time for which a lifting force greater than or equal to the lifting force threshold is maintained.

21. (Previously presented) The method according to Claim 19, further comprising the steps of:

g) storing the maximum lifting force,

h) selecting a lifting force threshold below the maximum lifting force,

j) in an intermittent contraction mode, generating an intermittent signal detectable by the patient to prompt alternate self-stretching contractions and relaxations and counting the number of contractions reaching a lifting force threshold after a sufficient relaxation characterized by a sufficiently low lifting force.

22. (Previously presented) The method according to Claim 19, further comprising the steps of:

k) with the patient in the position of the preceding steps for measuring the self-stretching force, in normal plantar support on one foot, measuring the maximum frontal force with which the thigh of the patient bears against the anterior support,

l) selecting a frontal bearing force threshold less than the maximum frontal bearing force exerted by the thigh,

m) determining the endurance of the psoas major muscle by measuring the maximum time for which a frontal bearing force greater than or equal to the frontal bearing force threshold is maintained and/or by counting the number of alternating contractions in periods of relaxation and reaching the frontal bearing force threshold.

23. (New) The device of Claim 15, wherein the anterior support constitutes a frontal bearing against which the anterior base of the thigh of the patient can bear on flexing by less than 20°.

24. (New) The device of Claim 12, wherein the means for measuring the vertical lifting force is positioned to measure force exerted by a top portion of the head of the patient.

25. (New) A device for measuring muscle strength, comprising:

a lower support base adapted to support a standing patient in plantar support on said lower support base,

an upper support bracket movable vertically above the lower support base and conformed to bear vertically on the head of said patient,

means for selectively immobilizing the upper bearing bracket in vertical position,

means for measuring the vertical position of the upper support bracket,

means for measuring the vertical lifting force that the head of the patient applies to the upper support bracket, wherein the means for measuring the vertical lifting force is positioned to measure force exerted by a top portion of the head of the patient, and

plantar support sensors in the lower support base adapted to test for maintained normal plantar support of the foot or feet of the patient by producing a signal if the foot or feet are no longer in normal plantar support.